



Queensland University of Technology

**DISCUSSION PAPERS IN ECONOMICS, FINANCE
AND INTERNATIONAL COMPETITIVENESS**

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Scheme After a Decade**

ISSN 1324-5910

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Discussion Paper No. 127, January 2003

**Series edited by
Associate Professor Andrew Worthington**

School of Economics and Finance

A REVIEW OF AUSTRALIA'S COMPULSORY SUPERANNUATION SCHEME AFTER A DECADE

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1. INTRODUCTION

The following review of Australia's retirement savings system takes 1992 as the beginning of compulsory mass superannuation in Australia with the introduction of the Superannuation Guarantee (SG). Today, in 2002, the SG has reached its maximum levy of nine per cent of salary for most employees. While our review necessarily considers issues of national economic policy and of aggregation, our central concern is that of those individual members of a superannuation fund, and that of how such members can maximise their retirement benefit. Our perspective is that of financial economists; we apply standard finance technology to evaluate the performance of superannuation funds and the markets in which they operate in order to come to a view as to whether the superannuation industry is efficient.

The Australian superannuation system places trustees in the key role of managing superannuation assets and we subject the role of trustee to close scrutiny while identifying the very substantial principal-and-agent problems that exist in the industry. We consider two policy issues: member choice of fund and portability of accumulated balances in the light of how they would improve the ability of individual members to maximise retirement benefits and the efficiency of the system. We argue that the award superannuation scheme which requires, by conditions in industrial awards, contributions of three per cent of wage or salary of an employee continues along side the SG scheme is due for review. While there is an extensive literature on taxation of superannuation funds, we do not consider this issue except to note that taxation concession to superannuation are substantial and are projected to be of the order of \$10.5 billion in 2002-3 (Department of Finance and Administration 2002).

2. THE OLD SUPERANNUATION SYSTEM

The old system, the system that prevailed before the introduction of compulsory superannuation initiatives in the late 1980s and early 1990s, was predominately a defined benefit system restricted to public sector employees and managerial employees of the private sector. Much of the system, particularly in respect of the Commonwealth government, was unfunded and retirement benefit were meet on an emerging cost basis. That other schemes may have been unfunded was not a problem in the face of poor preservation and vesting requirements. Some evidence on the extent of vesting in 1984 is shown below:

Table 1: Members of Private Sector Life Administered Employee Funds (%)

	Resignation	Retrenchment	Dismissal	Early Retirement
Own Contributions or less	5.8	4.3	15.6	2.8
Own contributions plus interest	29.9	18.0	33.0	11.2
Own contributions plus interest and partial vesting	41.3	34.2	33.2	21.6
Full vesting	21.2	41.7	16.7	62.5

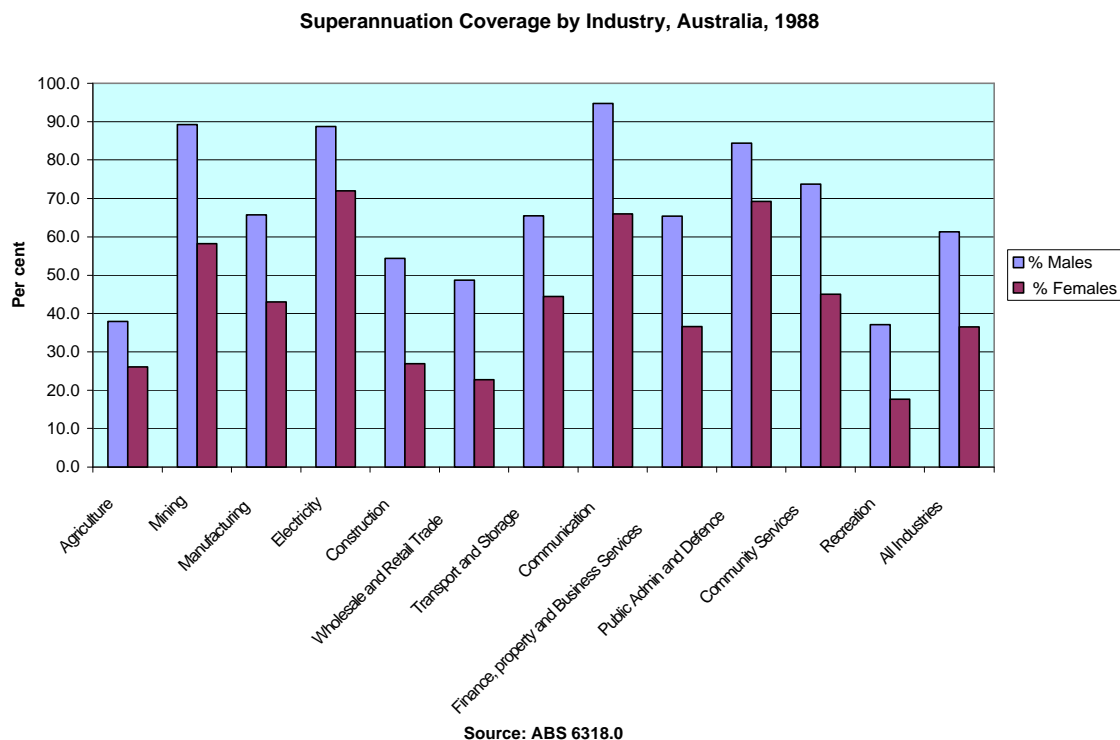
Source: Australian Bureau of Statistics, 1988, *Superannuation Funds Australia 1984-5*, Cat. No. 5649.0.

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Generally the incidence of complete vesting was low and preservation requirements were not stringent.¹ Other parts of the system were run through life offices.²

i) Coverage of the Old Scheme

The proportion of employees covered by superannuation under the old scheme was relatively low especially for part-time workers. In 1988, 58 per cent of full time employers, 19 per cent of part-time workers and only 2 per cent of persons not employed were covered by a superannuation scheme (ABS 1988). As illustrated below, coverage varied widely over the industry groups.



Moreover, the introduction of award superannuation had a greater impact in the private sector as shown below:

Table 2: Type of Superannuation Coverage, Australia, 1988, Employees (%)

Provider	Public Sector	Private Sector	Total
Current Employer	89.1	75.0	80.3
In conjunction with a union	9.2	16.2	14.8
Not in conjunction with a union	76.7	58.9	65.6
Privately arranged	10.3	26.3	18.6
Total	100.0	100.0	100.0

Source: ABS 1988

ii) Reasons for Change

Dawkins (1992) explained that the new Superannuation Guarantee (SG) was introduced to meet the urgent need for much greater self-provision for retirement income through compulsory superannuation-

¹ For a detailed discussion on the history of superannuation see Robinson (1992) and the Insurance and Superannuation Commission (1995, 1996).

² For example, some Australian universities adopted superannuation schemes which were operated by the purchase of life insurance policies that matured on the retirement age of the employee; there are some remnants of these schemes still in existence.

contributions and that there was a need to strengthen Australia's national saving performance.³ "Greater domestic saving will relax the current account constraint on Australia's economic performance. It will mean that we can grow faster without relying so heavily on foreign saving and building up an unsustainable foreign debt." Implementation of the SG was projected "to increase national saving by about seven-tenths of one per cent of GDP by the year 2005, and by one-and-one-quarter percentage points of GDP within forty years (Dawkins 1992)." The Department of Finance and Administration (2002) claims that the key objectives of compulsory superannuation when introduced in 1992-3 were greater private sector provision for retirement and to assist lower income workers to live better in retirement through a combination of the age pension supplemented with tax assisted superannuation.

Howe (1989) claimed that the "SGC initiative is directed at swelling the pool of private savings potentially available to fund retirement." Important associated aspects of the new policy with the SG were the strengthening of the current preservation requirements and a phased increase in the preservation age. The government's preferred position was for a total contribution of 12 per cent comprising an ultimate 9 per cent of salary and a 3 per cent contribution by employees. The prescribed schedule of SGC contributions is shown below.

Table 3: Prescribed SGC Contributions, 1992-2003

	Employer's Payroll \$1 million or less Per Cent	Employer's Payroll More than \$1 million Per Cent
July 1, 92 to Dec 31, 1992	3	4
July 1, 93 to June 30, 1993	3	5
1993-4	3	5
1994-5	4	5
1995-6	5	6
1996-7	6	6
1997-8	6	6
1998-9	7	7
1999-00	7	7
2000-01	8	8
2001-02	8	8
2002-03	9	9

Source: Howe (1989)

iii) Summary of the Old Superannuation System

In summary, we identify seven key features of the old superannuation system:

1. Primarily oriented to public sector employees and managerial employees of the private sector;
2. Poor coverage of part time workers;
3. Defined benefit funds formed a significant part of the total scheme;
4. Poor vesting and preservation requirements;
5. Life offices important in the administration of superannuation assets;
6. System challenged by inflation; and,
7. The rise of new fund managers.

3. THE NEW SUPERANNUATION SYSTEM

The new system comprises the following elements:

1. Compulsory award based superannuation under which three per cent of wages and salaries is paid to a fund specified in the award;
2. The Superannuation Guarantee (SG) under which employers are required to make payments of a specified proportion of wage and salaries to a complying superannuation fund of the employers' choice. Failure to pay the SG results in a penalty payment by the employer the Superannuation Guarantee Charge (SGC);

³ Current practice is to refer to the Superannuation Guarantee as the "SG" and to the Superannuation Guarantee Charge as the "SGC". This practice is of relative recent origin as Dawkins refers to the SG as the SGC. Earlier it was also common to refer to the SG as the "SGL".

3. Occupational superannuation schemes, which may be compulsory for employees, under which employers pay an amount greater than the SG to a complying fund of the employer's choice and which may be matched by a required contribution from employees;⁴
4. DIY schemes, these are small Self Managed Superannuation Funds (SMSF) regulated by the Australian Taxation Office;
5. Voluntary contributions by members to the schemes above; and,
6. Personal superannuation schemes, unrelated to occupational superannuation schemes in a retail fund.

The government provided annuity, the age pension, continues to be the major source of income support for retired persons in Australia at December 2001, over 67 per cent of the population received a full or a part pension. A further 13 per cent receive a service pension (Department of Family and Community Services 2002). The proportion of retired people on the age pension is unlikely to decline in the future due to the low workforce participation rate of people aged 45 and over. Currently, some 38 per cent of people aged 55 to 64 years are in receipt of Commonwealth government income support (Department of Family and Community Services 2002). The projections of expenditure on the age pension by the Commonwealth, show that expenditure on the age pension will rise from 2.9 per cent of GDP in 2001-2 to 4.6 per cent in 2041-2 (Commonwealth of Australia 2002).

Part of the increase in the proportion of the age pension has been a result of government policy changes that have relaxed the eligibility conditions. Also important has been the trend to earlier retirement and the ability to take superannuation retirement benefits as a lump sum. The time between early retirement and age 65 years is financed by running down a lump sum to fulfill the eligibility requirements for the age pension (Department of Finance and Administration 2002). Even retirees with relatively large lump sums can qualify for the pension (and financial planners have developed easily implemented tactics to do so). The maximum age pension for a couple is currently over \$18,000 a year and the means tests allows this to be received by a couple owning their own home and having over \$200,000 in assets. We would conclude that, in the current environment, there is no feasible change to superannuation arrangements, which will reduce dependency on the age pension over the next 40 years. A summary view of the New Superannuation System is shown in Table 4 below:

Table 4: Assets and Membership by Type of Fund, Australia, March 2002

Type of Fund	Number of Funds	Assets \$Billion	Accounts Million	% of Assets	% of Accounts	Average Assets per Account (\$'000)
Corporate	2771	72	1.5	14.4	6.2	48000
Industry	128	48	7.3	9.6	30.4	6575
Public Sector	91	110	2.8	22.0	11.7	39285
Retail	251	173	12.0	34.7	50.0	14416
Small Funds	233903	97	0.4	19.4	1.7	242500
Total	237144	499	24.0	100.0	100.0	20792

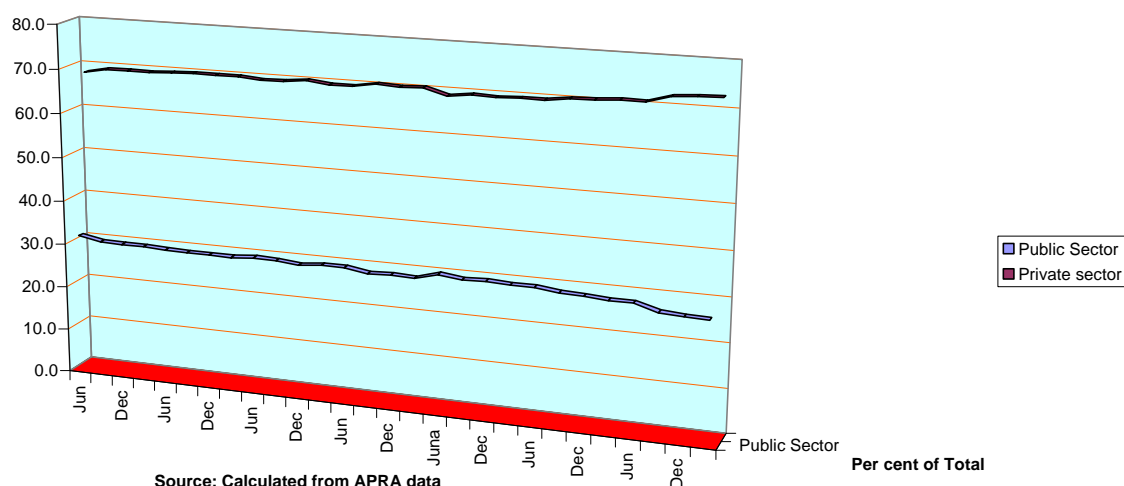
Source: APRA Superannuation Statistics, March 2002.

SMSFs are numerically the most common type of fund being designed for self employed persons. Corporate funds are funds run by private sector corporations for their employees with membership restricted to particular occupational groups; public sector funds are funds of public sector employees; industry funds are those established for the receipt of award superannuation and retail funds are public offer funds open to the general public for personal superannuation scheme and to employer schemes. Most accounts are held in the industry and retail funds as most new entrants to the superannuation system would be members of these funds. A marked feature of the system is the fragmentation of accumulated balances as most employees are, on average, a member of four funds. The low average balances in such funds is a product of these two factors. The average balance in the public sector funds under-reports the actual value of superannuation to members as their entitlement to a defined retirement benefit is not shown in present value terms in accounts of unfunded schemes. The Commonwealth governments superannuation schemes, the Commonwealth Superannuation Scheme, CSS, which replaced an earlier scheme in 1976, was itself closed to new entrants in 1990 when a new Commonwealth scheme, the Public Sector Superannuation Scheme, PSS, was established. As at June

⁴ The superannuation scheme for Australian Universities is of this type; membership of the scheme is a condition of employment for university employees. The universities pay 14 per cent of salary and employees pay 7 per cent of after tax salary to the fund that is operated by the employers' consortium.

1999, this fund had an estimated unfunded liability of over \$42 billion or about 10 per cent of the total superannuation assets in Australia.

Assets of Superannuation Funds, Australia, Public Sector and Private Sector, 1995 to 2002



i) Coverage of the New Superannuation System

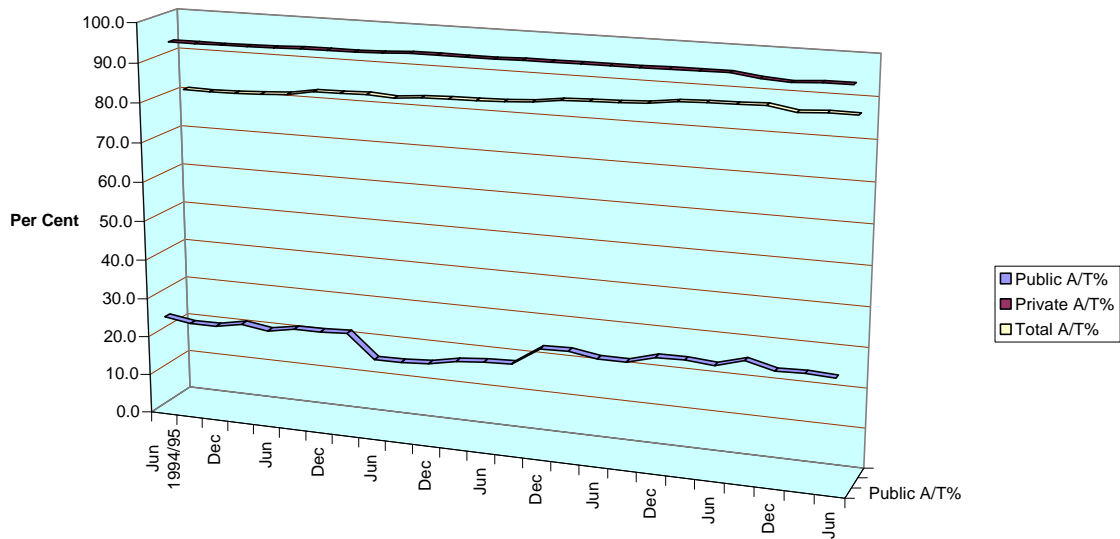
In 1999, nearly 97 per cent of full time employees, and 76 per cent of part time employees, were covered by superannuation; this a 91 per cent coverage of all employees, Commonwealth Treasury (2002).

ii) Type of Fund: Defined Benefit or Accumulation Funds

The type of retirement benefit produced for the member can classify superannuation funds; either defined benefit or defined contribution (or accumulation) funds. Defined benefit scheme promise members a retirement benefit defined, usually, in terms of final salary either as a lump sum (x times final salary) or a pension (y% of final salary a year). Defined contribution funds define a contribution from members (z% of salary) and the retirement benefit is the accumulated values of these contributions together with accrued interest. A defined contribution fund makes no binding promises as to the retirement benefit but tries to maximize this value on a best endeavours basis. The fundamental difference between the funds lies in the allocation of investment risk, specifically the question of who wears poor investment returns. In a defined benefit scheme the investment risk falls on the sponsor of the scheme (usually the employer) while in a defined contribution scheme the investment risk is borne entirely by the member of the fund. If the fund performs poorly the retirement benefit of the member in a defined contribution scheme will be low, therefore, this type of benefit has risk/return similarities with equity capital.

The great majority of members of the New Superannuation scheme in Australia are members of defined contributions schemes, as shown in the chart below, which means that the risks of poor investment performance to the average Australian is substantial. As we note elsewhere in the paper the risks borne by members of most defined benefit schemes are low and the question of prudential regulation of defined benefit funds is a very low priority.

Proportion of members of Superannuation Funds in Accumulation Funds



Source: Calculated from APRA data

iii) Asset Allocation

Asset allocation is the investment composition of superannuation fund portfolios. As all asset classes do not have the same expected return/risk profile, portfolio composition decisions will affect the performance of the fund and the risk to which individual members are exposed. The aggregate asset allocation of funds is shown below.

Table 5: Superannuation Asset Allocation, 1994-5 to 2001-2; Total Assets (%)

	Cash	Loans and Placements	Interest – Bearing Securities	Equities	Land and Buildings	Other Assets	Assets overseas
1994-5	6	4	26	37	7	4	15
1995-6	6	4	25	39	7	4	15
1996-7	6	5	24	40	6	4	16
1997-8	7	5	23	39	6	4	16
1998-9	7	5	23	38	6	4	17
1999-0	6	5	19	42	5	3	18
2000-1	7	5	16	45	6	3	18
2001-2	7	4	16	46	5	3	19

Source: Calculated from APRA 2002

The general trend in asset allocation has been to move away from domestic fixed interest assets to domestic and overseas equities. There are two reasons for this. The first is the attempt to gain the equity premium and to diversify the portfolio internationally. The second is more mundane, but institutionally important for the future of superannuation asset management. The size of the Australian fixed interest market and the domestic equities market will not allow great allocation to these areas. The total assets on issue in these markets is shown below:

Table 6: Superannuation and Available Financial Assets, 1990 to 2001, \$ Billion

	Market Capitalisation ASX (Domestic Equities)	New Capital Raisings - ASX	Government Securities on Issue – Commonwealth	Government Securities on Issue – State	Total Superannuation Assets
1990	162.7	7.4	25.6	17.6	
1991	167.2	9.1	29.1	16.1	
1992	198.3	14.3	41.6	13.6	
1993	227.7	15.8	60.5	11.1	
1994	287.6	17.0	77.1	10.0	
1995	299.1	14.0	94.7	8.1	229.4
1996	347.0	15.3	104.2	4.5	262.7
1997	444.4	25.3	106.1	3.7	321.6
1998	488.9	28.8	93.6	1.9	361.0
1999	568.3	33.0	86.9	1.8	412.2
2000	682.0	32.6	77.6	1.2	490.5
2001	746.3	na	69.2	0.7	524.4

Source: RBA Statistical Bulletin; ASX; APRA.

Three points are notable. Commonwealth government securities on issue have actually declined since 1996, so much so that there is doubt as to whether the government bond market can survive; the Commonwealth government is to release an issues paper on this matter in September/October 2002. At the end of 2001, Australian superannuation funds' aggregate holdings of domestic equities represented about 24 per cent of the total market capitalisation; since not all equities are available to the superannuation funds (e.g. Telstra Ltd is 50.1 per cent owned by the government, some equities are held by other listed companies such as the listed investment companies) this is significant both in the operations of the equities market and in the prospective returns superannuation funds can earn through equities. The total SG contributions are of the order of \$16+ billion a year, so investment of this sum into domestic equity markets poses some issues when new capital raisings are only twice this sum. In general the asset allocation has moved to increased riskiness and variability of returns; credit risk is increased if more non-government fixed interest securities are held in the portfolio. While increased holdings of equities would, on average, see higher long run returns to the portfolio, the cost is greater volatility of returns. The volatility of returns of the major asset classes over the past 10 years is shown below.

Table 7: Risk and Return Profile of Major Asset Classes

Asset Class	Mean return (in AUD) % p.a. (unweighted)	Standard deviation
Australian shares	11.5	8.2
International Shares	12.2	18.0
Listed Property Trusts	12.4	6.5
Australian fixed interest	9.7	6.1
International fixed interest	10.9	12.1
Cash	6.2	1.3

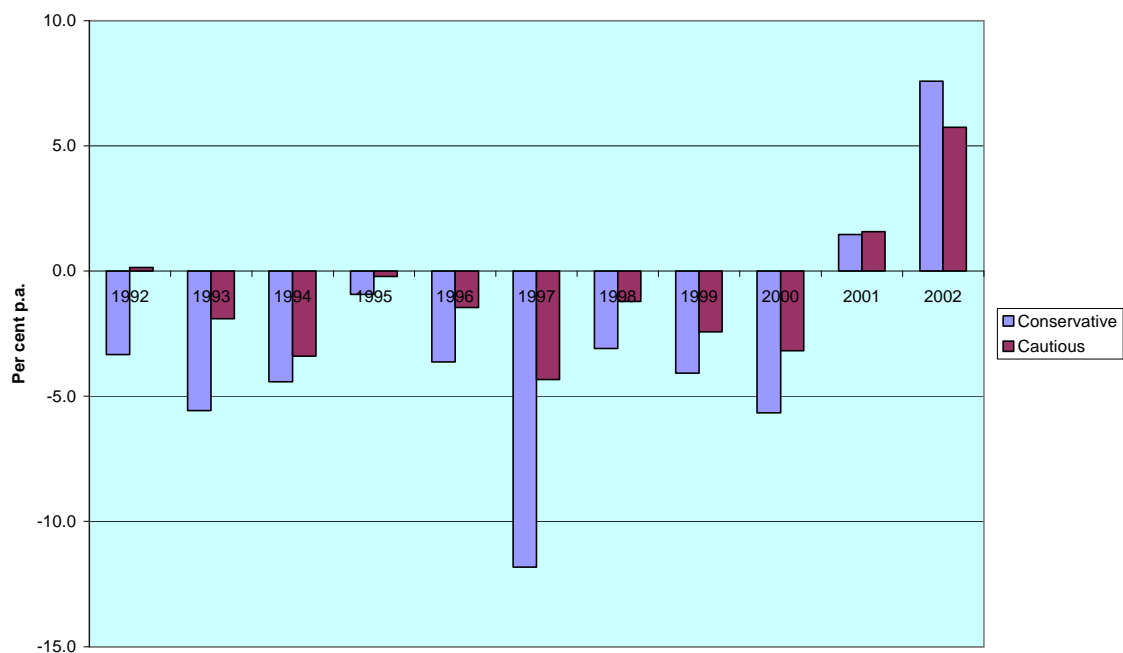
Calculated from ASSIRT data

The volatility of international asset classes is increased by the volatility of the dollar. Australian fixed interest and cash reflect the high rates of the early 1990s. The advantage of investors seeking the equity premium is shown in the chart below where the estimated returns to a hypothetical conservative portfolio and a hypothetical cautious portfolio are compared with a hypothetical balanced portfolio. The asset allocation weights for each portfolio are as below:

Table 8: Hypothetical Asset Allocation Weights, Per cent of Total

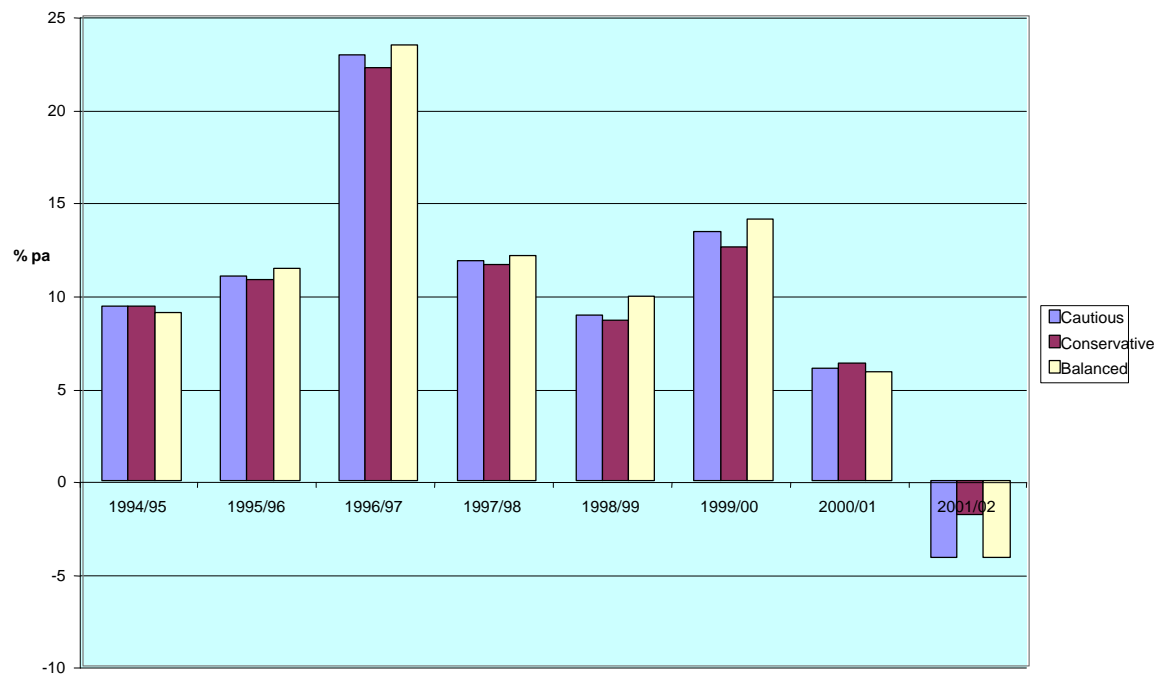
Portfolio	Australian Shares	International Shares	Listed Property Trusts	Australian Fixed Interest	International Fixed Interest	Cash
Conservative	0	0	0	20	20	60
Cautious	15	5	5	45	15	15
Balanced	30	10	10	30	10	10

Returns to Conservative and Cautious Portfolios compared to Balanced Portfolio, Australia, 1992-2002



In the chart below we estimate the return of superannuation funds over the period using the actual asset allocation and actual asset class return but making no allowance for expenses and costs. The point of the chart is that it reinforces the points that returns to superannuation funds will be largely determined by asset allocation and the riskiness of the portfolio by the proportion of assets allocated to equities. The long boom in equity prices was from 1995-6 to 1999-2000 so, in this time frame, increased allocation to equities produced a higher return; in 2000-1, the story is different as exposure to equities in a bear market reduces returns.

Estimated Returns to Australian Superannuation Funds, 1994-5 to



We would generally support a life cycle approach to the asset allocation for members where the proportion of the portfolio allocated to risky assets decreases with increasing age (Malkiel 1999); this receives support from Campbell and Viceira (2002) who also note that time preference and risk attitudes can have large effects on optimal portfolios. It is general very difficult for members to maintain a conservative portfolio due to the declining amount of bonds outstanding; furthermore a conservative asset allocation over the long term would look for indexed bonds to form a large component of the bond portfolio.

iv) Summary of the New Superannuation System

The New Superannuation System can be characterised as

1. High coverage of employees;
2. Nearly all employees who entered the system since 1992 are members of a defined contribution or accumulation fund;
3. Members bear the investment risk;
4. Members retirement values depend on the return to the fund's portfolio and the expenses incurred by the fund;
5. Vesting and preservation are completed to create an ill-liquid and long term asset for members;
6. Asset allocation decisions are limited by the availability in the aggregate of some assets;
7. High and increasing risk for members.

4. ROLE OF TRUSTEES

The New Superannuation system places trustees in the key position for the operation and management of funds; trustees are the legal owners of the assets of the superannuation funds. Trustees make decisions about the asset allocation and asset selection of funds. We examine their roles in greater detail.

i) Trusts

Trusts are legal devices that separate legal and beneficial ownership of assets.⁵ Under a trust, the trustee legally owns the assets of the trust but is required to manage the assets for the benefit of the

⁵ A legal description of a trust is "a trust exists when the holder of a legal or equitable interest in certain property is bound by an equitable obligation to hold his interest in that property not for his own exclusive benefit, but for the benefit, as to the whole or part of such interest, of another person or persons or for some object or purpose

person or persons nominated by the legal instrument that sets up the trust. Trusts may be created in a variety of ways, the most common of which is the trust deed, which also authorises the trustee to hold the trust assets in particular forms.

Trustees have certain duties to perform in relation to the management of trust assets; these have been explained in the following way in an extract from the Model Code.⁶

“In the exercise of his powers of investment the trustee shall consider:-

- (a) The trust funds as a whole, the nature, composition and purposes of the trust and its anticipated duration;
- (b) The needs and circumstances of the beneficiaries;
- (c) The suitability of the investments held and of investments proposed;
- (d) The need for diversification of investments;
- (e) The administrative costs, including commission, fees, charges and duties payable, of making or varying any investment;
- (f) The taxation consequences of making or varying any investment; and
- (g) The possible impact of inflation or deflation.”

The trustee is, thus, to take into account the particular circumstances and needs of the beneficiary and, under certain circumstances, the opinion and desires of the beneficiaries as well as the extent of the trust powers before deciding on the appropriate investments. The duties of trustees are, in fact, to act as portfolio managers and to allocate trust assets to securities to further the goals of the trust. There are no formal qualifications for a trustee so that inexperienced persons not versed in financial management may be appointed.

ii) The Prudent Person Approach

All Australian jurisdictions have now adopted the prudent person approach to the duties of trustees. In 1995, the South Australia parliament approved a new approach to authorised trustee status in that State by moving to a prudent person approach but made an important innovation by codifying the factors that should be considered by a trustee in exercising investment powers. The power of trustee to invest is expressed in the following way:

A trustee, unless expressly forbidden by the instrument creating the trust, may:⁷

- (a) Invest trust funds in any form of investments; and
- (b) At any time, vary an investment or realise an investment of trust funds and reinvest money resulting from the realisation of any form of investment.

A trustee, if a professional manager of funds for other people, must exercise the care, diligence and skill that a prudent person engaged in that profession would exercise in managing the affairs of other persons or otherwise must exercise the care, diligence and skill that a prudent person of business would exercise in managing the affairs of other persons. A trustee must comply with the rules and principles of law that impose duties on a trustee to:

- (a) Exercise the powers of a trustee in the best interests of all present and future beneficiaries of the trust;
- (b) Invest trust funds in investments that are not speculative or hazardous;
- (c) Act impartially towards beneficiaries and between different classes of beneficiaries;
- (d) Take advice.

The trustee must pay attention to the following matters in exercising powers of investment. The trustee must have regard to:

- (a) The purposes of the trust and the needs and circumstances of the beneficiaries;
- (b) The desirability of diversifying trust investments;
- (c) The nature of and risk associated with existing trust investments and other trust property;
- (d) The need to maintain the real value of the capital or income of the trust;
- (e) The risk of capital or income loss or depreciation;
- (f) The potential for capital appreciation;

permitted by law.” Meagher and Gummow, *Jacobs’ Law of Trusts in Australia*, fifth edition, Sydney, Butterworths, 1986, p7

⁶ Further explanation of the legal basis of these duties is given in Ford and Lee, *Principles of the Law of Trusts*, Sydney, Law Book Company, 1990 and Lee (ed), *Model Trustee Code for Australian States and Territories*, Working Party, 1989

⁷ Trustee (Investment Powers) Amendment Act 1995 (SA)

- (g) The likely income return and the timing of income return;
- (h) The length of the term of the proposed investment;
- (I) The probable duration of the trust;
- (j) The liquidity and marketability of the proposed investment during, and on the determination of, the term of the proposed investment;
- (k) The aggregate value of the trust;
- (l) The effect of the proposed investment in relation to the tax liability of the trust;
- (m) The likelihood of inflation affecting the value of the proposed investment or other trust property;
- (n) The costs (including commissions, fees, charges and duties payable) of making the proposed investment; and
- (o) The results of a review of existing trust investments.

In carrying out their duties, trustees may obtain and consider independent and impartial advice reasonably required for the investment of trust funds or the management of the investment from a person whom the trustee reasonably believes to be competent to give the advice and to pay the reasonable costs of obtaining such advice from trust funds. Furthermore, the Act provides that a court may offset gains and losses arising from investment of a trustee when there is an action for breach of trust against the trustee.⁸

5. LACK OF COMPETITION

The New Superannuation System is characterised by lack of competition arising from members having no choice of fund either in relation to contributions or of accumulated balances; some members have investment choice or individual asset allocation but, as far as we are aware, no-one has individual choice of asset selection. Superannuation is a captive market and contains no incentives for efficiency, cost reduction or maximising returns to the portfolio. The uncompleted change to the New Superannuation System is member choice of fund and member decision on portability of balances.

i) Choice of Fund and Portability of Accumulated Balances

The Commonwealth Government announced a policy of choice of fund in 1996 and introduced a detailed proposal in the 1997 Budget. Specific proposals for choice of fund were introduced into Parliament in December 1997. Originally introduced as Schedule 5 to the Taxation Laws Amendment Bill 1997, the choice legislation was re-introduced on November 12, 1998 in revised form as the Superannuation Legislation Amendment (Choice of Superannuation Funds) Bill 1998. This Bill passed in the House of Representatives in February 16, 1999, but debate on the Bill in the Senate was adjourned on February 1999; the Bill was defeated in the Senate in August 2001.

The Commonwealth Government introduced new legislation, Superannuation Legislation Amendment (Choice of Superannuation Funds) 2002 in the House of Representatives on June 27, 2002; this Bill was referred to the Senate Select Committee on Superannuation on August 21, 2002 for report due September 26, 2002. The Assistant Treasurer has released a discussion paper on portability. The Commonwealth Treasury (2002) has stated that the Government considers that choice and portability of superannuation in conjunction with improved consumer disclosure will increase competition and provide benefits to fund members. We have argued that member choice and portability of balances should be unrestricted (Drew and Stanford, 2002) which supports the Wallis Committee recommendations, although we discount the potential difficulties as envisaged by the Committee. We see considerable efficiencies arising from member choice and portability of balances not the least being the consolidation of multiple accounts. As a result of the existing employer choice of fund most employees are members of more than one fund; Rice and McEwan (2002) estimate that the average number of accounts per person is three and despite the attempts the problem continues as the number of accounts continues to grow faster than the labour force. Rice and McEwan (2002) estimate that the potential annual savings of elimination of 50 per cent of account is of the order of \$500 million.

⁸ Under The Trustee Investments Acts 1961 (UK) trustees are required to divide the trust funds into two parts referred to as the "narrow-range part and the wider-range part". Some investments eligible for inclusion in the narrow-range part, typically risk-free fixed interest securities whose capital value does not fluctuate, may be selected by the trustee without advice whereas the trustee may select other securities whose capital value may fluctuate (typically government long term securities, mortgages on freeholds or long leaseholds) only after first obtaining expert advice. The trustee is not required to hold securities which are eligible for inclusion in the wider-range part (such securities are ordinary shares) but if such securities are held the trustee must obtain prior expert advice, which must be in writing, from a person believed by the trustee to be qualified. The trustee cannot repose blind faith in the expert advice because the trustee must act personally and cannot delegate such decisions.

6. COSTS OF SUPERANNUATION FUNDS

The costs of running superannuation funds varies better funds but is increasing as more accounts are held with high cost funds. Examples of funds costs are shown below:

Table 9: Superannuation Fund Costs

Type of Fund	Cost: Investment % of funds under management	Cost: Administration % of funds under management	Cost: Distribution % of funds under management	Total Expense Rate %
Large Corporate Wholesale	0.34	0.38	0.33	1.05
Large Corporate Employer Master Trust	0.40	0.35	0.10	0.85
Large Industry	0.45	0.60	0.10	1.15
Government	0.20	0.23	0.00	0.43
Retail - Small Retail Employer Master Trust	0.60	0.90	0.50	2.00
Retail - Personal Super	1.24	0.60	0.50	2.34

Note: These costs exclude entry and exit fees. Source: Rice and McEwan (2002)

What is important in accounting for costs of superannuation funds is access to wholesale investment rates (we discuss this later in the paper) and distribution costs. On both counts, retail funds have comparatively high costs. Costs of government funds are low because the administration of superannuation has been integrated into the payroll function and many government funds are unfunded.

7. INVESTMENT RETURNS TO FUNDS

Trustees are required under SIS to formulate and give effect to an investment strategy appropriate for fund members. Trustees have statutory powers allowing them to engage asset consultant to assist in the formulation of this strategy and assist in striking mandates with asset managers. In exploring the issue of investment efficiency of Australia's superannuation assets, we examine the performance of superannuation funds specialising in the management of Australian equities.⁹ These studies have considered two cohorts of funds, retail and wholesale funds.¹⁰

We commence the analysis with an examination of retail superannuation fund performance (Drew and Stanford 2001a, 2003). In these studies, Morningstar Research Pty Ltd (Morningstar), an independent measurement service in Australia, provided monthly return observations (net of management fees, excluding entry and exit loads) for every retail superannuation fund classified as 'Retail Superannuation Fund Australian Equity – General', from January 1991 through December 1999. The sample of 148 funds was complete in the sense that it contained all of the funds with no missing data and was maintained by the same independent data collection agency throughout the period (Drew and Stanford 2001b). The average retail fund investigated in these studies charged investors a management fee of 1.8 per cent per annum (with a range 1.5 to 2.5 per cent per annum).¹¹ This compares with the Rice and McEwan (2002) figure of retail personal superannuation costs of 1.24 per cent; we have, at this juncture, no explanation of the difference but it may be due to different coverage or to a decline in costs. Table 2 presents the results of retail fund performance for the period 1991 through 1999.

⁹ The Australian equities asset class is selected as it accounts for some 40 per cent of current superannuation assets, www.apra.gov.au

¹⁰ For an examination of the relationship between fund size and performance see Drew, Stanford and Hoffman (2002).

¹¹ It is important to note that the analysis undertaken in Drew and Stanford (2001a, 2003) was specifically concerned with evaluating the skill of asset managers. As such, the impact of entry and exist loads was excluded from the analysis. The average entry load of a retail fund was 3.7 per cent (with the maximum entry load at 5%) and the exit load was 2.0 per cent (maximum of 3%).

Table 10: Risk-Adjusted Retail Superannuation Fund Return Estimates

Alpha (α) is estimated from the cross-sectional time series regression of the excess fund returns on the excess market return and the mimicking returns for the size ($R_{st} - R_{lt}$), style ($R_{gt} - R_{vt}$) and bond ($R_{dt} - R_{ft}$) factors: $R_{it} - R_{ft} = \alpha_i + \mathbf{b}_{mt}(R_{mt} - R_{ft}) + \mathbf{b}_{st}(R_{st} - R_{lt}) + \mathbf{b}_{gt}(R_{gt} - R_{vt}) + \mathbf{b}_{dt}(R_{dt} - R_{ft}) + \mathbf{e}_i$. The excess market return, $R_{mt} - R_{ft}$, is the difference between the return on the Australian Stock Exchange (ASX) Top 100 Accumulation Index (with the ASX Top 20 Accumulation index used as a confirmatory proxy) and the return on the Reserve Bank of Australia 13-Week Treasury Note in month t . The size factor is the return on the mimicking portfolio for the common size anomaly in stock returns. The style factor is the return on the mimicking portfolio for the common book-to-market equity anomaly in stock returns. Finally, the bond factor is the return on the mimicking portfolio of domestic fixed interest securities to limit the defects of asset coverage. \mathbf{b}_k is the factor loading on the corresponding independent variable. All t -statistics are provided in the brackets. Performance measures are in percentage return per month on an equal-weight basis.

$R_{mt} = \text{ASX Top 100 accumulation index}$	
Cohort	α
Retail open-end	-0.0282 (0.14)
Retail closed-end	-0.0671 (-0.66)
Retail non-surviving	-0.2541 (-0.85)
<i>All retail funds</i>	-0.0416 (-0.44)
Basis points (p.a.)	-50
$R_{mt} = \text{ASX Top 20 accumulation index}$	
Retail open-end	-0.0249 (-0.11)
Retail closed-end	-0.1034 (-0.74)
Retail non-surviving	-0.2273 (-0.69)
<i>All retail funds</i>	-0.0777 (-0.46)
Basis points (p.a.)	-93

Source: Drew and Stanford (2003).

The multifactor model estimates presented in Table 1 suggest that managers under-perform the market by a range of -50 to -93 basis points per annum. Moreover, the evidence presented on the other three explanatory variables (size, style and domestic fixed interest securities) illuminates some important issues for the management of superannuation assets. First, an examination of the regression coefficients in Table 1 suggests that the funds investigated during the sample period held equities that were smaller than the combination of equities in the ASX Top 100 and Top 20 accumulation index. This suggests that managers are being strategic in their behaviour, investing in small-capitalisation stocks outside popular benchmarks. The existence of a size factor in the sample provides further evidence of the strength of the multifactor model.

Second, a statistically significant explanatory variable was the excess return on a portfolio of domestic fixed interest securities above the risk-free rate. This finding highlights that investors engaging specialist domestic stock managers are, typically, investing in a portfolio that has a significant proportion (up to 20 per cent) of return contributed by lower volatile, fixed interest securities. This relatively high proportion of domestic fixed interest exposure must be incorporated into the superannuation investor's approach to the asset allocation problem. Finally, dissimilar to the recent international evidence of Gruber (1996) the managers investigated in studies by study are not characterised by a particular stock selection style. This is confirmed by the independent variable 'style' not being statistically different from zero at the 5 per cent level. This issue warrants further investigation. Specifically, the way in which managers actually select stocks requires a more detailed analysis to provide a statistically significant explanatory variable for the Australian experience. A direction for future research may take the form of qualitative techniques (such as fund manager

surveys) to shed light on this important issue. This would also assist trustees in selecting or blending different managers to mitigate risk for fund members.

We now turn our attention to the performance of the wholesale fund segment (Drew, Stanford and Veeraraghavan 2002). Again, Morningstar provided monthly return observations (net of management fees, excluding entry and exit loads) for every wholesale superannuation fund classified as 'Wholesale Pooled Superannuation Trust Australian Equity – General', from January 1991 through April 1999. A total of 30 funds are examined in the Drew *et al.*, (2002) study.¹² The annual average management fee of the sample was 0.74 per cent per annum. A further defining feature of the sample of wholesale funds was that no entry or exit loads are levied by any of the managers. The results presented in Table 2 are estimated from the same model as used in the previous table.

Table 11: Risk-Adjusted Wholesale Superannuation Fund Return Estimates

R_{mt} = ASX Top 100 Accumulation Index	
Cohort	a
Wholesale Open-end	0.0051 (0.02)
Wholesale Closed-end	0.0013 (0.01)
Wholesale Finalised	-0.0005 (0.01)
<i>All wholesale funds</i>	<i>0.0045</i> <i>(0.02)</i>
Basis points (p.a.)	+5
R_{mt} = ASX Top 20 Accumulation Index	
Wholesale Open-end	0.0041 (0.02)
Wholesale Closed-end	-0.0007 (0.01)
Wholesale Finalised	0.0011 (0.02)
<i>All wholesale funds</i>	<i>0.0036</i> <i>(0.04)</i>
Basis points (p.a.)	+4

Source: Drew, Stanford and Veeraraghavan (2002).

The empirical analysis undertaken in Table 11 provides partial answers to the question of whether low cost management is the best alternative for superannuation assets. There is evidence over the observation period that, net of management fees, investment managers performed comparably to a passive asset selection strategy on a risk-adjusted basis. Moreover, the results provide little support to the position of Logue and Rader (1998) in advocating a strictly passive approach to asset selection. While the results are supportive of the low cost management case, it is most important to note that the minimum investment amount into a wholesale fund is around AUD 250,000. As such, we remain concerned that the market that is most accessible to the average superannuation investor is the retail market.

¹² The wholesale open-end cohort consists of superannuation funds that are structured to accept investments from trustees. The funds investigated in this study typically require a minimum investment of AUD 250,000, with minimum monthly contributions of AUD 20,000. These funds are pooled and invested by a fund manager in a portfolio of general Australian equities. Wholesale funds permit superannuation trustees to buy and sell at a unit price based on the appraised value of total assets. Investors can leave and enter at any time and assets may be continually added to the fund. A total of 26 open-end funds are investigated in this study. Closed end retail funds no longer accept new investors or new investments from existing unitholders. These are usually difficult funds for investors to exit owing to a lack of liquidity in the fund's underlying investments. However, due to the fund being closed-end in nature, this allow the fund manager to be largely unaffected by the impact of large capital inflows and outflows from superannuation trustees. This provides the investment manager with a degree of certainty regarding the assets under management. The liquidity issues relating to exiting such funds have resulted in superannuation trustees being minimal users of these closed-end products. A total of 2 wholesale closed-end funds are examined in this study. The wholesale non-surviving cohort is comprised of funds that were terminated during the sample period. The decision to finalise a fund is typically made by the investment manager. The Australian wholesale market is characterised by a low mortality rate, with only 2 funds were terminated over the sample period.

In concluding the review, it is important to consider the controversial issue of performance persistence or the 'hot hand' anomaly. Specifically, researchers (and trustees!) are concerned with whether the track record of an asset manager is information-rich regarding future performance. Specifically, the hot hand anomaly suggests that the best performing managers can be selected on an ex-ante basis. In practice, poor aggregate industry performance of the retail fund segment is purely academic if, and only if, a handful of asset managers can consistently earn economic rents (positive risk-adjusted returns) for members, and these managers can be selected by trustees and asset consultants ex-ante.

Drew, Stanford and Taranenko (2001) and Drew, Stanford and Veeraraghavan (2003) have considered the hot hand issue in the context of retail superannuation funds. Drew *et al.*, (2002) commence their analysis of performance persistence in raw returns through an examination of how the best performing funds in one year perform the following year using Bogle's (1995) framework. To minimise the possibility of randomness in any single year, Drew *et al.*, (2002) made comparisons of fund rankings in each year throughout the 1990s (i.e., how the top five, ten and twenty fund performers of 1991 ranked in 1992, through to how the best performing funds in 1998 performed in 1999).

Table 12: Rank Order of Retail Superannuation Funds, Raw Returns

Raw returns	Rank in Year one	1992	1993	1994	1995	1996	1997	1998	1999	Average Year two
	1	68	49	66	132	12	112	127	57	78
	2	77	86	33	131	1	109	128	112	85
	3	78	9	50	124	7	2	26	113	51
	4	62	10	19	94	139	120	27	114	73
	5	11	86	18	95	138	1	125	51	66
	6	69	87	25	130	135	83	126	55	89
	7	70	37	12	128	130	10	20	123	66
	8	71	38	13	129	71	5	21	124	56
	9	72	85	4	127	34	6	22	120	55
	10	66	84	5	125	35	16	24	121	60
	11	67	4	53	126	118	15	30	122	67
	12	47	35	34	123	119	54	31	126	71
	13	48	36	35	121	113	139	25	128	81
	14	63	75	37	122	114	138	28	127	88
	15	64	76	67	120	115	137	123	130	104
	16	74	77	59	118	124	132	124	131	105
	17	75	78	60	117	125	44	9	10	65
	18	55	79	64	100	121	38	10	13	60
	19	56	69	65	99	122	39	11	9	59
	20	40	70	37	31	123	40	7	117	58
Summary of average raw returns (% p.a.)										
Top 5 funds	33.58	-2.22	27.17	-2.92	12.85	17.49	15.31	1.41	25.52	11.83
Top 10 funds	28.67	-3.11	27.72	0.87	10.63	14.20	17.73	5.21	23.03	12.04
Top 20 funds	24.69	-2.32	29.17	-2.88	11.07	11.83	16.53	7.33	23.91	11.83
All funds	14.94	1.11	33.21	-3.97	16.61	13.84	11.76	7.34	31.28	13.90
Market	15.78	-1.40	37.62	-7.78	20.15	12.32	15.17	12.57	33.09	15.22
No. of funds	113	80	87	98	132	143	139	135	135	119

Source: Drew, Stanford and Veeraraghavan (2002).

The evidence provided in Table 12 suggests that a top performing fund in one year has borne no systematic relationship to its ranking in the subsequent year. An equally weighted portfolio of the top five ranked funds in the first year provides a raw return of +33.58 per cent, over double the average return for all funds of +14.94 per cent. In the second year, the average return falls to +11.83 per cent, below the average fund return of +13.90 per cent. Funds that rank in the top five in a given year, on average, ranked 71 (of 119 funds) in the subsequent year. We concur with Bogle (1995) in describing this as evidence of mean reversion. When examining the question of performance persistence over a full decade, it appears from analysis that a strategy of investing in the best performing funds of the past year provides no ex-ante information regarding the selection of winners in the subsequent year.¹³

The results from the performance evaluation and persistence studies suggests that any bias toward high-cost management strategies of superannuation assets by any stakeholders (trustees, asset consultants, asset managers, and, most importantly, fund members) is unwarranted. The lack of performance persistence in the retail fund segment is particularly concerning, with trustees and fund members being better served by a random choice of asset managers than using short-term performance as a selection criterion. This raises the 'prickly' issue of how asset managers should be selected to manage superannuation assets. Moreover, the empirical evidence presented highlights the need for regulators, trustees and fund members alike to employ as a matter of priority strategies to minimise the various impacts of the principal-agent problem in Australia's contemporary superannuation arrangements.

8. REGULATION OF SUPERANNUATION FUNDS

Compulsory contributions to superannuation are made to privately managed funds that are subject to little regulation. The Commonwealth government explicitly disclaims any responsibility of the outcome of private management of superannuation although there are national goals embodied in superannuation policy. The Australian superannuation system has become an individual system; for any contributor individual contributions and the earnings on those contributions determine the terminal benefit received. Regulation of superannuation funds is the responsibility of the Australian Prudential Regulation Authority, APRA, a body created from the recommendations of the Wallis Committee Report (1997). Regulation is relatively light with no portfolio restrictions except to ensure arms length transactions. As superannuation funds are organised as trusts, the responsibility for the performance of funds lies with trustees. In addition to specific responsibilities in the superannuation regulatory regime, trustees have other legislative responsibilities and common law duties. It is important to determine the goals of regulation; we take it that the goal of regulation is to protect the interests of individual contributors and to ensure that the terminal value of their superannuation benefit is maximised.

There is a major difference between the two types of funds: defined benefit funds and defined contribution funds. As discussed previously, members of defined contribution funds are given no promises as to the terminal value of their retirement benefit; the superannuation will, on a best endeavors basis, attempt to maximise this benefit. On the other hand, members of defined benefit funds are given an explicit promise or guarantee that they will receive a defined benefit, defined in terms, usually, of final salary. If this benefit is received as a pension the concern about the quality of the guarantee will persist over a long time. What is critical to members of defined benefit schemes is the quality of this promise or guarantee. Government has provided defined benefit schemes to their employees and large corporations to their managerial employees. Many of these funds, particularly, of the government have been unfunded and the payment of benefits is met on an emerging cost basis. Again, it is important to note in this context that the major Commonwealth government superannuation schemes the Commonwealth Superannuation Scheme, the CSS, and the Public Sector Superannuation Scheme, PSS, are unfunded and it is estimated that the unfunded liability of these schemes is of the order of \$40 billion or about 10 per cent of total reported assets of superannuation funds. Despite this level of liability and the high cost of these funds, the CSS is estimated to have an employer cost of over 21 per cent of salary and the PSS over 14 per cent, the members of these funds can have faith in the quality of the promise or guarantee of their employer as it is backed by the sovereign credit of the Commonwealth. Some State government public sector superannuation schemes are fully funded (e.g. Queensland) but any problems due to under-funding or under-performance will be resolved by application of the explicit guarantee. Concern about government defined benefit funds should rest with the tax-payer who ultimately funds the guarantee. However, the long-term cost of government defined

¹³ The study by Drew *et al.*, (2002) also conducted performance persistence tests on risk-adjusted returns reporting similar results. Moreover, confirmatory measures including year-on-year regressions and non-parametric tests also provide corroborating evidence of the null hypothesis that past fund performance data is simply that, it's in the past.

benefit schemes is projected to decrease as access to defined benefit schemes is reduced. The CSS has been closed to new entrants since 1990 and the Commonwealth Government has proposed to close the PSS to new entrants although enabling legislation has failed to pass the Senate.

Members of private sector defined benefit superannuation schemes may have some concerns about the quality of the promise regarding their retirement benefit.

We ask further why individual contributors are not capable of protecting their own interests. The answer to this question lies in the existence of asymmetric information and agency problems. Individual contributors have very little information about the operation of superannuation fund. While they receive an annual report they have access to little information between reporting dates and are unable to form an opinion about the management and performance of the fund. There are no general information sources about superannuation funds such as exist for credit ratings or companies listed on the stock market. Contributors have no choice of fund and are unable to transfer between funds in response to poor performance so that the ordinary market mechanisms to ensure performance do not apply. Agency problems in superannuation funds are severe and the management of superannuation funds cannot be regarded as the agents of contributions except in the most formal legal sense. The relationship between parties in a superannuation fund are as follows: the principal is the member or contributor to the superannuation fund; the principal has the following agents:

- (a) The employer is the agent who selects the fund for the member; and is the agent who selects half trustees in some funds;
- (b) The trustee is the agent who manages the fund on behalf of the principal;
- (c) The asset consultant is the agent of trustee who advises on investment strategy and choice of fund managers; and,
- (d) The funds manager is the agent of trustee who implements investment strategy.

The power of principals is limited in that they cannot select the fund into which to direct contributions, they cannot select trustees as generally there is no direct method of election or appointment, they cannot give trustees direction, and they cannot remove trustees (apart from the normal trustee appointment cycle). The only case where the principal can affect the behaviour of trustees is in a SMSF where all members of the fund must be trustees. The method of selection of trustees for a selection of superannuation funds is summarised below.

Table 13: Method of Selecting Superannuation Funds Trustees, Selected Funds

Fund	Employer Trustees	Employee Trustees	Independent Trustee
CSS (Public Sector)	Appointed by Minister of Finance and Administration	Appointed by Minister of Finance and Administration	Two elected by Appointed Trustees
UniSuper (Corporate)	Nominated by Universities (2); Elected by Consultative Committee members who represent employers (2)	Elected by Consultative Committee members who represent academic staff (1); Elected by Consultative Committee members who represent general staff (1); Nominated by national unions who represent a significant number of members of UniSuper (2)	Appointed by other Trustees (2)
REST (Retail Employees Superannuation Trust)	Appointed by major retail employers: Woolworths, Coles, and Australian Retailers Association	Appointed by Shop Distributive Trades Union	
C+Bus	Appointed by Master Builders' Association	Appointed by unions: CFMEU, AMWU, AWU	Appointed by ACTU
BT Personal Superannuation Fund	Retail Fund	Trustee is BT Funds Management Limited; the fund manager is Bankers Trust Life Limited which is subsidiary of parent company, Bankers Trust Australia Group. Directors of these companies are employees of the parent company	

Notes:

(a) CSS is the accumulation fund; CSS is a hybrid scheme which has an unfunded defined benefit scheme and a defined contribution fund to invest award superannuation and other employee contributions. See Annual Report, 2002.

(b) UniSuper is a hybrid fund with a funded defined benefit scheme and an accumulation fund for employee and award superannuation contributions. See Annual Report, 2002.

(c) Details on REST and C+Bus accessed at rest.com.au and cbus.com.au respectively.

(d) Data on BT Personal Superannuation Fund BT Investor Brochure.

We have seen previously that a trustee is required to act in the interests of the beneficiary and should do so irrespective of how the appointment of trustee was made; the employer and trade unions have no interest in the operation of a superannuation fund and it seems anomalous that these parties should select trustees. In retail funds the agency problem is complete; there are no circumstances under which a trustee would dismiss a funds manager. In general, we would expect it to be extremely difficult for members of a superannuation fund to vary the operation of a fund.

Some superannuation funds allow investment choice which is the choice of individual asset allocation; however, this does not change the operations of the fund and does not allow a complete choice to members e.g. does not allow for the choice of indexed funds. We have also seen that there is no qualification required for the role of trustee and that the trustee may seek advice. The asset consultant, the agent of trustee who advises on investment strategy and choice of funds manager; has an incentive to make that advice complicated in order to maintain a continuing role (and fees); asset consultants will invariably recommend that the trustee employs a number of active funds managers so that the asset will have a continued monitoring role. The funds manager, the agent of trustee who implements investment strategy, has choice of asset selection and this is always active management. Funds managers are remuneration not by success at obtaining excess returns but by a commission on the value of funds

under management. Asset consultants and funds managers have an important, but largely unrecognised, role as managers of trustees, that is, in being able to form the views of trustees. Asset consultants and funds managers vehemently oppose the use of passive management of equity (and indeed other portfolios) because passive management denies them a role and their fees. Monitoring of passively managed portfolios is simple; it involves little more than looking in the newspaper's financial columns.

i) Agency Problems and Fund Performance

One of the first studies to consider the principal-agent problem as it relates to the poor performance of the asset management industry was contributed by Lakonishok, Schleifer, and Vishny (1992). Lakonishok *et al.*, (1992) hypothesise that industry underperformance against stated benchmarks was the result of non-alignment of incentives of principals (trustees) and their agents (asset managers). Moreover, Lakonishok *et al.*, (1992) find that the costs associated with trustees monitoring the activities of asset managers to be high.

Logue and Rader (1998) extend the analysis through an examination of the role of asset consultants in the principal-agent problem. Logue and Rader (1998) suggest that trustees, in employing asset consultants to assist in the formulation of cogent investment strategy, create an asset consultant-asset manager problem. They suggest that the incentives facing asset consultants result in them being "*biased against economically appealing strategies that are passive in nature* [pp. 197]." This multi-faceted approach to the traditional bivariate principal-agent framework is appealing as it better reflects the contemporary institutional arrangements in Australia's superannuation system.

We consider the practicalities of this complex trustee-asset consultant-asset manager problem in superannuation from the perspective of the fund member.¹⁴ While Logue and Rader (1998) advocate a strictly passive approach to the management of retirement assets, we present the case for low cost management being the preferred option for superannuation assets. The distinction between passive and low cost management is a subtle, but important one. Passive management, or indexing, is low cost due to asset selection being determined by an individual asset's contribution to an index. Low cost investing may still take the form of active management (that is, taking active bets to be over- or under-weight an asset's contribution to an index) that are at least comparable (preferably greater than) the index return on a risk-adjusted basis. To make the case for low cost asset management, we rely on the findings of the studies previously reported in an earlier section of this paper. We expect that there is little that can be more to eliminate these principal and agent problems and to make the trustee regime more responsive to the requirements of members. There is a more direct way to do so. This requires simply a policy change to allow for member choice of fund and full portability of accumulated balances along the lines suggested by the Wallis Committee (1997); this proposal has been examined in Drew and Stanford (2002). The introduction those measures will bring some degree of market discipline to a superannuation regime which, to date, has been marked captive markets generating quasi-rents to participants. Trustees and funds managers will respond to member requirements when failure to do so sees the shrinking of their business and remuneration. The difficulties and costs of these measures is exaggerated by opponents who are seeking to protect vested interests and who deny the capacity of members to make informed choices.

To deny the capacity of members to make rational choices is dangerous ground for an economist to attempt to hold. The economic arguments for compulsory superannuation are only two: myopia and moral hazard. Myopia obtains when economic agents who are willing to provide for their retirement postpone doing so because of short time horizons; when such agents reach the position that they are prepared to save for retirement it is then too late. The moral hazard problem exists when agents capable of providing for their retirement do not do so because they hold the belief that the community will not allow them to starve in retirement. Both of these reasons are not enough to justify the case that economic agents cannot make a rational choice about the preferred fund for their superannuation contributions and a preferred funds manager. Under current arrangements it is not rational for members of superannuation funds to acquire knowledge about superannuation because there are no benefits in doing so. Members are unable to affect the operations of their superannuation fund so it is not rational to incur costs to find out more about superannuation in general and their fund in particular. For most employees in Australia, superannuation evokes little interest and takes little of their time; they may see in their pay-slip the deduction for superannuation and may examine their annual return from their superannuation fund although they will receive little joy much less advantage from doing so.

¹⁴ For examination of the member choice debate from the perspective of the fund member, see Drew and Stanford (2002).

9. CONCLUDING COMMENTS

The compulsory Superannuation Guarantee has brought about substantial changes to the Australia superannuation sector. Coverage of employees under the New Superannuation System is high as 91 per cent of all employees are covered. The provision of retirement benefits has been individualised as most employees (over 80 per cent) are members of a defined contribution or accumulation fund which means that the members bear the investment risk. Most (some fifty per cent) are members of a retail fund; retail funds are characterised by low investment returns (relative to a standard benchmark) and high cost with a total expense ratio exceeding two per cent of assets under management. Retail funds have been shown to be inefficient in producing good returns for members as these funds under-perform by up to 90 basis points a year; in addition their expense ratio is high at about 150 points a year and entry and exit fees account for 3.5 per cent of funds under management.

Another significant proportion of employees are members of industry funds which have, on average, low accumulated balances. The existence of low balances adds to the costs of the system; consolidating the fragmented holdings of members can effect substantial savings.

Overall, we find that the New Superannuation System is inefficient, low return and high cost. One major inefficiency is the fragmentation of accounts so that, on average, members have three accounts.

We find that this inefficiency is due to a lack of competition and the existence of severe principal-agent problems, in particular, trustees do not appear to act in the interests of their members. The preferred policy solution is to allow for unrestricted member choice of fund and unrestricted portability of accumulated balances.

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